

#8

SEQUENCE LISTING

<110> OHSUMI, CHIEKO
TAJI, TERUAKI
SHINOZAKI, KAZUO



<120> A METHOD FOR PROVIDING A PROPERTY OF STRESS-RESISTANCE

<130> 204934US0

<140> 09/810,186

<141> 2001-03-19

<150> JP 72668/2001

<151> 2001-03-14

<160> 4

<170> PatentIn version 3.1

<210> 1

<211> 750

<212> PRT

<213> Glycine max

<400> 1

Met Thr Val Thr Pro Lys Ile Ser Val Asn Asp Gly Lys Leu Val Val
 1 5 10 15
 His Gly Lys Thr Ile Leu Thr Gly Val Pro Asp Asn Val Val Leu Thr
 20 25 30
 Pro Gly Ser Gly Arg Gly Leu Val Thr Gly Ala Phe Val Gly Ala Thr
 35 40 45
 Ala Ser His Ser Lys Ser Leu His Val Phe Pro Met Gly Val Leu Glu
 50 55 60
 Gly Leu Arg Phe Met Cys Cys Phe Arg Phe Lys Leu Trp Trp Met Thr
 65 70 75 80
 Gln Arg Met Gly Thr Cys Gly Arg Asp Val Pro Leu Glu Thr Gln Phe
 85 90 95
 Met Leu Ile Glu Ser Lys Glu Ser Glu Thr Asp Gly Glu Asn Ser Pro
 100 105 110
 Ile Ile Tyr Thr Val Leu Leu Pro Leu Leu Glu Gly Gln Phe Arg Ala
 115 120 125
 Val Leu Gln Gly Asn Asp Lys Asn Glu Ile Glu Ile Cys Leu Glu Ser
 130 135 140
 Gly Asp Asn Ala Val Glu Thr Asp Gln Gly Leu His Met Val Tyr Met
 145 150 155 160
 His Ala Gly Thr Asn Pro Phe Glu Val Ile Asn Gln Ala Val Lys Ala
 165 170 175
 Val Glu Lys His Met Gln Thr Phe Leu His Arg Glu Lys Lys Arg Leu
 180 185 190
 Pro Ser Cys Leu Asp Trp Phe Gly Trp Cys Thr Trp Asp Ala Phe Tyr
 195 200 205

Thr Asp Val Thr Ala Glu Gly Val Glu Glu Gly Leu Lys Ser Leu Ser
 210 215 220

Gln Gly Gly Thr Pro Pro Arg Phe Leu Ile Ile Asp Asp Gly Trp Gln
 225 230 235 240

Gln Ile Glu Asn Lys Ala Lys Asp Ala Thr Glu Cys Leu Val Gln Glu
 245 250 255

Gly Ala Gln Phe Ala Thr Arg Leu Thr Gly Ile Lys Glu Asn Thr Lys
 260 265 270

Phe Gln Lys Lys Leu Gln Asn Asn Glu Gln Met Ser Gly Leu Lys His
 275 280 285

Leu Val His Gly Ala Lys Gln His His Asn Val Lys Asn Val Tyr Val
 290 295 300

Trp His Ala Leu Ala Gly Tyr Trp Gly Gly Val Lys Pro Ala Ala Thr
 305 310 315 320

Gly Met Glu His Tyr Asp Thr Ala Leu Ala Tyr Pro Val Gln Ser Pro
 325 330 335

Gly Val Leu Gly Asn Gln Pro Asp Ile Val Met Asp Ser Leu Ala Val
 340 345 350

His Gly Leu Gly Leu Val His Pro Lys Lys Val Phe Asn Phe Tyr Asn
 355 360 365

Glu Leu His Ala Tyr Leu Ala Ser Cys Gly Val Asp Gly Val Lys Val
 370 375 380

Asp Val Gln Asn Ile Ile Glu Thr Leu Gly Ala Gly His Gly Gly Arg
 385 390 395 400

Val Ser Leu Thr Arg Ser Tyr His His Ala Leu Glu Ala Ser Ile Ala
 405 410 415

Ser Asn Phe Thr Asp Asn Gly Cys Ile Ala Cys Met Cys His Asn Thr
 420 425 430

Asp Gly Leu Tyr Ser Ala Lys Gln Thr Ala Ile Val Arg Ala Ser Asp
 435 440 445

Asp Phe Tyr Pro Arg Asp Pro Ala Ser His Thr Ile His Ile Ser Ser
 450 455 460

Val Ala Tyr Asn Ser Leu Phe Leu Gly Glu Phe Met Gln Pro Asp Trp
 465 470 475 480

Asp Met Phe His Ser Leu His Pro Ala Ala Asp Tyr His Ala Ala Ala
 485 490 495

Arg Ala Ile Gly Gly Cys Pro Ile Tyr Val Ser Asp Lys Pro Gly Asn
 500 505 510

His Asn Phe Asp Leu Leu Lys Lys Leu Val Leu Pro Asp Gly Ser Val
 515 520 525

Leu Arg Ala Gln Leu Pro Gly Arg Pro Thr Arg Asp Ser Leu Phe Val
 530 535 540

Asp Pro Ala Arg Asp Arg Thr Ser Leu Leu Lys Ile Trp Asn Leu Asn
 545 550 555 560

Lys Cys Ser Gly Val Val Gly Val Phe Asn Cys Gln Gly Ala Gly Trp
 565 570 575

Cys Lys Ile Glu Lys Lys Thr Arg Ile His Asp Thr Ser Pro Gly Thr
 580 585 590

Leu Thr Ala Ser Val Cys Ala Ser Asp Val Asp Leu Ile Thr Gln Val
 595 600 605

Ala Gly Ala Glu Trp Leu Gly Asp Thr Ile Val Tyr Ala Tyr Arg Ser
 610 615 620

Gly Glu Val Ile Arg Leu Pro Lys Gly Val Ser Ile Pro Val Thr Leu
625 630 635 640

Lys Val Leu Glu Phe Glu Leu Phe His Phe Cys Pro Ile Gln Glu Ile
645 650 655

Ala Pro Ser Ile Ser Phe Ala Ala Ile Gly Leu Leu Asp Met Phe Asn
660 665 670

Thr Gly Gly Ala Val Glu Gln Val Glu Ile His Asn Arg Ala Ala Thr
675 680 685

Lys Thr Ile Ala Leu Ser Val Arg Gly Arg Gly Arg Phe Gly Val Tyr
690 695 700

Ser Ser Gln Arg Pro Leu Lys Cys Val Val Gly Gly Ala Glu Thr Asp
705 710 715 720

Phe Asn Tyr Asp Ser Glu Thr Gly Leu Thr Thr Phe Ser Ile Pro Val
725 730 735

Ser Pro Glu Glu Met Tyr Arg Trp Ser Ile Glu Ile Gln Val
740 745 750

<210> 2

<211> 2780

<212> DNA

<213> Glycine max

<400> 2

tcttccattg gaggaccatt tcttcctgga atagaaatac taccacactt ttcttttttc	60
acttctctaa gttgctaagt taattgctcc ttcatttttt cactcttcgt tctcgcgtac	120
ccgtgtcacg gtaactcgtg gtgaagtgtt cgaaaatgac tgtcacacct aagatctcag	180
ttaacgatgg gaaacttggt gtccatggta agaccattct gactggagtg ccagacaacg	240
ttgtgctgac tccaggttct ggaaggggtc ttgtgactgg tgcttttggt ggtgccacag	300

cttcacacag	caaaagtctc	catgtgtttc	caatgggtgt	tttagagggg	ctccggttca	360
tgtgttggtt	cgggttcaag	ttatggtgga	tgactcagag	aatgggaact	tgtgggaggg	420
atgttcctct	ggagactcaa	ttcatgctta	ttgagagcaa	agagagtga	actgatgggg	480
agaattctcc	aatcatctac	actgtcttgc	ttcctctcct	cgaagggtcaa	ttccgagctg	540
ttcttcaagg	caatgacaag	aacgagatag	agatttgcct	cgagagtggg	gataatgcag	600
ttgagactga	ccaaggcctt	cacatgggtt	acatgcatgc	tgggaccaat	ccctttgaag	660
tcataaatca	agctgtcaag	gctgtggaaa	aacacatgca	aacttttctt	catcgtgaga	720
agaaaagggt	gccatcttgt	cttgactggg	ttggatgggt	cacatgggat	gctttctata	780
ctgatgtcac	agctgagggt	gttgaggaag	gcctgaaaag	tctatcacag	ggagggtacac	840
ctccacgatt	cctcatcata	gatgatgggt	ggcaacagat	tgaaaataaa	gcaaaggatg	900
ctactgaatg	tttggtacaa	gaaggagcac	agtttgctac	taggttgact	ggtattaaag	960
agaataactaa	atltcaaaaag	aaattacaga	acaatgagca	gatgtcaggt	ctgaagcatc	1020
tagtacatgg	agcaaagcag	catcacaatg	tgaaaaatgt	atatgtatgg	catgcactag	1080
ctgggttattg	gggtggagtg	aagccagcag	caaccggcat	ggaacattat	gacactgcct	1140
tggcatatcc	agtgcagtca	ccaggcgtgc	taggaaacca	accagacatt	gtcatggaca	1200
gcttggctgt	acatggcctt	ggcctagtgc	acccaaagaa	ggttttcaat	ttctacaacg	1260
agctccatgc	ttacttagct	tcttgtggag	tagatggagt	gaaggttgat	gtgcagaaca	1320
ttattgagac	ccttgggtgcg	ggacatgggt	gccgagtgtc	acttactcgc	agctatcatc	1380
acgcgcttga	ggcttccatt	gctagcaatt	ttactgataa	cggatgcatt	gcgtgtatgt	1440
gtcacaacac	tgatggactt	tatagtgcct	agcagactgc	tattgtgaga	gcttctgatg	1500
atltttaccc	tcgtgatcct	gcttcccata	ccatccatat	ttcttctgtt	gcatacaact	1560
cactattcct	tggagaattc	atgcaacctg	actgggacat	gtttcatagt	ttacacccag	1620
cagcagatta	tcataatgtt	gctcgtgcaa	ttgggtggatg	tcctatttat	gttagtgaca	1680
agccaggcaa	tcacaatgtt	gatcttctta	agaagctggg	tctcccggat	ggttcgggtt	1740
tccgtgctca	gttacctggc	aggccaactc	gtgattctct	atltgtggat	ccagccagag	1800
ataggactag	cttgctcaaa	atatggaacc	tgaacaaatg	ctctggaggt	gttgggtgtat	1860

ttaa ct gcca aggtgctgga tgg tg caaga tagagaagaa aacccgc atc catgatacat	1920
ctcctgggtac actcaccgcc tctgtctg cg cctctgatgt tgacctc atc acacaagtag	1980
caggtgctga atggc tt gga gatacaattg tttatgctta cagatcaggt gaggtgattc	2040
ggctac caaa agggg ttt ca attccagtga cactaaaagt tctggag ttt gagcttttcc	2100
acttctgtcc aatccaagaa atagctcaa gtatatcatt tgcagcaata gggctactgg	2160
atatgttcaa cactggagga gcagtggagc aggttgagat tcataaccga gcagcaacga	2220
aaacaatagc tcttagtgta aggggaagag gcagatttgg agtttactcc tcccagagac	2280
cactgaagtg tgtggtaggt ggcgctgaaa ccgacttcaa ctatgactca gagaccgggt	2340
tgacaac ctt ctccattcca gtttctccag aggagatgta cagatgg tca atagagatcc	2400
aagtttgagt cctttt taag acttgggtgtt tgatgcattg ttgtatcagg agaagggttt	2460
tgttgtaatt aagcattgag ggaattgttg gagtcaggca gagagagagg ggggaggttt	2520
gttgtaagac acctagtatt agtatcatgt agtggagaaa aagggttgtt gatcctaata	2580
gctagacaag gcatgttgta gtagtcatgg ggtggggaag tccttttgtt gtagcatgta	2640
atttggttta gacttgtagt atgtcatcaa ttagatggat aaagagagaa tattgttatc	2700
tacccgagga tgtaacaatg tttgtttctc tgaataaaaa gttcacatct gtcttttggg	2760
ataataaaaa aaaaaaaaaa	2780

<210> 3

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 3

tttccgg~~ttc~~ aagttatggt

20

<210> 4

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA

<400> 4

caatgcatcc gttatcagta

20